DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-009964
Date Inspected: 28-Oct-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 645
OSM Departure Time: 1845
Location: Shanghai, China

CWI Name:	Li Jha and Wu Chi Chang			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☐ No	☑ N/A

Bridge No: 34-0006
Component: OBG Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath. Math. was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Area

This QA inspector performed dimensional check along with ABF on OBG skin plate flatness across transverse splice on below segments and readings found to be in general compliance.

5AW – 5BW

5BW – 5CW

5AE – 5BE

5BE – 5CE

Segment 1AW to 1AAW

This QA Inspector observed ZPMC welding personnel performing Carbon Arc Gouging for removing the defects

found by Ultrasonic Test for Segment 1AW to 1BW at Side Panel Corner Assembly Counter Weight for Weld No. OBW1A -009. Noted down the “Y” Datum Line locations from the reference line and recorded the preheat temperature and approximately depth of excavations.

Excavations Done from Internal Side

Y Location Start= 2580mm and Y Location Stops=2720 Length of excavation is 140mm.
Y Location Start= 6138mm and Y Location Stops=6348 Length of excavation is 210mm.
Y Location Start= 6568mm and Y Location Stops=6748 Length of excavation is 180mm.
Y Location Start= 7328mm and Y Location Stops=1960 Length of excavation is 140mm.
Y Location Start= 1830mm and Y Location Stops=1960 Length of excavation is 110mm.
Y Location Start= 1830mm and Y Location Stops=1960 Length of excavation is 260mm.

Segment 1AE to 1AAE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Segment to Segment Transverse Splice Weld for the segment 1AW to 1BW between PP 10 and 11 at Bottom Panel for the UT rejected areas and excavation was been performed from the internal side. The welders are identified as 045138 to 045196. The weld was identified as OBE1A-003. The weld was performed against the B-CWR868 Rev.0. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-1. The parameters noted down by QC found in compliance with WPS.

Segment 1AE to 1AAE

This QA Inspector observed ZPMC welding personnel performing Carbon Arc Gouging for removing the defects found by Ultrasonic Test for Segment 1AE to 1AAE at Bottom Panel for Weld No. OBE1A - 003. Noted down the “Y” Datum Line locations from the reference line and recorded the preheat temperature and approximately depth of excavations.

Excavations Done from Internal Side

Y Location Start= 70mm and Y Location Stops=560 Length of excavation is 490mm.
Y Location Start= 800mm and Y Location Stops=1000 Length of excavation is 200mm.
Y Location Start= 1130mm and Y Location Stops=1330 Length of excavation is 200mm.
Y Location Start= 1840mm and Y Location Stops=1960 Length of excavation is 120mm.
Y Location Start= 3160mm and Y Location Stops=2320 Length of excavation is 840mm.
Y Location Start= 3510mm and Y Location Stops=4000 Length of excavation is 490mm.
Y Location Start= 4780mm and Y Location Stops=5110 Length of excavation is 330mm.
Y Location Start= 6600mm and Y Location Stops=6750 Length of excavation is 150mm.
Y Location Start= 8230mm and Y Location Stops=8440 Length of excavation is 210mm.

Segment 1AW to 1BW

This QA Inspector observed ZPMC welding personnel performing Carbon Arc Gouging from internal side for removing the defects found by Ultrasonic Test for Segment 1AW to 1BW at Side Panel Corner Assembly Counter Weight for Weld No. OBW1A -006. Noted down the “Y” Datum Line locations from the reference line and recorded the preheat temperature and approximately depth of excavations.

Excavations Done from Internal Side

Y Location Start= 40mm and Y Location Stops=140 Length of excavation is 100mm.
Y Location Start= 1830mm and Y Location Stops=1960 Length of excavation is 130mm.

Segment 1AW to 1BW

This QA Inspector observed ZPMC welding personnel performing Carbon Arc Gouging from external side for removing the defects found by Ultrasonic Test for Segment 1AW to 1BW at Side Panel Corner Assembly Counter Weight for Weld No. OBW1A -006. Noted down the “Y” Datum Line locations from the reference line and recorded the preheat temperature and approximately depth of excavations.

Excavations Done from Internal Side

Y Location Start= 7080mm and Y Location Stops=7630 Length of excavation is 550mm.
Y Location Start= 7880mm and Y Location Stops=8120 Length of excavation is 240mm.

OBG # TRIAL ASSEMBLY YARD (5CE)

Caltrans Quality Assurance (QA) inspector observed at the bottom and side Panel for skin flatness at 5CE segment located between PP34 to PP35. The surface flatness survey data was taken on the exterior side (Bike Path side). The out of flatness measurement is 10mm over a length of 630mm for bottom panel and 7mm over a length of 630mm for side panel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer